

Remarks / Discussion of Issues

In the non-final Office Action dated April 2, 2009, it is noted that papers submitted under 35 U.S.C. 119(a)-(d) have been acknowledged, the preliminary amendment filed on 5/15/06 has been entered, the drawings filed on 5/15/06 have been approved, claims 1-10 are pending, claims 1-6 stand rejected under 35 U.S.C. 101, claims 1-4, 7, and 8 stand rejected 35 U.S.C. 102(e), and claims 5, 6, 9, and 10 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1, 2, and 7 are independent claims. Claims 3-6 depend ultimately from claim 1 and claims 8-10 depend ultimately from claim 7.

By this response, claims 1-10 have been amended to clarify certain aspects of the subject matter. For example, claims 1 and 2 include the features of a “computer implemented method of . .determining, by a statistical module, a statistical model of the query fingerprint and/or a candidate fingerprint.” Emphasis added. Support for this amendment is found at least at page 6, lines 12-16 of the specification as originally filed. No new matter has been added.

Rejections under 35 U.S.C. §101

Claims 1-6 stand rejected under 35 U.S.C. 101 as allegedly not falling within one of the four statutory categories of invention. The office action alleges that the instant claims neither transform an article nor positively tie to a particular machine that accomplishes the claimed method steps.

Independent claims 1 and 2 include the features of a “computer implemented method of . .determining, by a statistical module, a statistical model of the query fingerprint and/or a candidate fingerprint.” Emphasis added. The process of independent claims 1 and 2 are tied to a particular machine, the machine being a statistical module. As such, Applicants respectfully submit that independent claims 1 and 2 qualify as statutory subject matter. Dependent claims 3-6 depend ultimately from independent claim 1 and inherit all of the features of claim 1. Thus, dependent claims

3-6 qualify as statutory subject matter at least by virtue of their dependency on claim 1. Therefore, Applicants' respectfully request the withdrawal of the rejection of claims 1-6 under 35 U.S.C. 101.

Rejections under 35 U.S.C. §102

Claims 1-4, 7 and 8 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by US 7,328,153 Wells et al. (hereinafter "Wells"). Applicants respectfully traverse this rejection.

Independent claims 1, 2, and 7 include similar features. In view of this similarity and for the sake of brevity for this response, the following remarks will be addressed to claim 1, but should be understood to pertain as well to claims 2 and 7.

Wells does not teach, show, or suggest the method defined in claim 1. Claim 1 recites: "A method of comparing a query fingerprint to a candidate fingerprint comprising: determining, by a statistical module, a statistical model of the query fingerprint and/or a candidate fingerprint and, on the basis of the statistical model, deriving a threshold distance within which the query fingerprint and the candidate fingerprint may be declared similar." Emphasis added.

Wells does not disclose every featured element as recited in claim 1. The Office Action alleges that Wells at column 9, lines 10-31, column 10, lines 20-47, Fig. 1A and column 20, line 47-column 21, line 8 teaches all of the features of Applicants' claim 1. See *the present Office Action at pages 3-4*. Applicants respectfully disagree. More specifically, Wells does not disclose deriving a threshold distance "on the basis of the statistical model," as recited in Applicants' claim 1.

Wells apparently is directed to the identification of sound recordings. At column 9, lines 10-31, Wells appears to disclose two database search methods, exact match and inexact or fuzzy match, and the requirements for implementing these methods. Wells at column 10, lines 20-47, seems to disclose a method for signal conditioning, which may include extracting a stream of recorded data and performing transformations such as removing periods of silence from the data. Wells' method for signal

conditioning apparently may also include the technique of histogram equalization, which is generally known by those skilled in the art as a method used in image processing to enhance the contrast of images.

Wells at Fig. 1A appears to show a flowchart where two candidate fingerprint components are compared, wherein if the difference between the candidate fingerprint components is below a threshold, then accept for further testing, otherwise, reject. Wells at column 20 line 23-column 21, line 8 apparently discloses a search method that looks for reference elements within a distance of the candidate element. If no matches are found then the search is abandoned, but if matches are found, the number of matches is determined. Wells at column 20, lines 50-55 recites:

The closest of those matches is determined 718 and compared 719 against a predetermined threshold. If that match is below the threshold, the corresponding fingerprint is determined to be the matching fingerprint 720. If the match is above the threshold, the candidate fingerprint is declared as not in the database 721. Emphasis added.

In summary, the cited portions of Wells do not disclose a method for deriving a threshold distance based on a statistical model as in Applicants' claim 1. Although Wells may compare elements of a candidate fingerprint with elements of a query fingerprint by determining the number of matching elements and comparing the matching elements against a predetermined threshold, Wells does not derive a threshold distance based on a statistical model.

Wells apparently discloses several different methods for deriving a predetermined threshold, however, in none of these methods is the threshold derived based on a statistical model. For example, at column 20, lines 14-15, Wells recites “[u]sing a representative sample of fingerprint data, compute the optimal cut-off threshold. . . .” Also, at column 23, lines 24-25, Wells recites “[t]uning is achieved by varying the L1 cut-off thresholds, the SRR thresholds. . . .” Also, at column 23, lines 34-37, Wells recites “the threshold is selected based on the relative spread of the fingerprints by computing intra-song and inter-song distances for a set of songs.”

However, nowhere does Wells disclose, teach or even suggest deriving a threshold distance "on the basis of the statistical model," as recited in Applicants' claim 1.

Thus, it is understood that Wells fails to teach all features of claims 1, 2, and 7. In light of these remarks, Applicants respectfully submit that Wells does not anticipate or make obvious independent claims 1, 2, and 7. Therefore, claims 1, 2, and 7 are allowable under both 35 U.S.C. §102 and 35 U.S.C. §103. Dependent claims 3, 4, and 8 depend from an allowable base claim and as such are allowable as well. Thus, Applicants respectfully request the withdrawal of the rejection to claims 1-4, 7 and 8 under 35 U.S.C. §102(e).

Conclusion

An earnest effort has been made to be fully responsive to the Examiner's correspondence and advance the prosecution of this case. In view of the foregoing, it is respectfully submitted that all the claims pending in this patent application are in condition for allowance. Reconsideration and allowance of all pending claims are respectfully solicited.

If there are any errors with respect to the fees for this response or any other papers related to this response, the Director is hereby given permission to charge any shortages and credit any overcharges of any fees required for this submission to Deposit Account No. 14-1270.

Respectfully submitted,

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